Claims

1. Adhesive tape comprising a backing comprising an oriented thermoplastic film and a coating comprising a solventlessly prepared pressure-sensitive adhesive composition based on non-thermoplastic elastomers such as natural rubber and tackifying resins, characterized in that the pressure-sensitive adhesive composition comprises a thermally labile crosslinking system.

2. Adhesive tape according to Claim 1, characterized in that the thermoplastic film comprises biaxially oriented HDPE, PVC or PET, monoaxially oriented polypropylene or biaxially oriented polypropylene.

3. Adhesive tape according to Claims 1 and 2, characterized in that the adhesive composition comprises a mixture comprising:

a) 100 parts by weight of	natural rubber
b) 70-120 parts by weight of	tackifying resins based on hydrocarbons
c) 5-30 parts by weight of	fillers
d) 2-20 parts by weight of	plasticizers
e) 0.1-15 parts by weight of	a crosslinker system
f) 0.5-5 parts by weight of	ageing inhibitors.

4. Adhesive tape according to one of Claims 1 to 3, characterized in that the crosslinker system is based on isocyanates, such as diisocyanates or polyisocyanates, and is used in particular at 0.1-5.0 parts by weight, especially 0.1-2.0 parts by weight.

5. Adhesive tape according to one of Claims 1 to 4, characterized in that the crosslinker system used comprises a mixture of at least one photoinitiator, used in particular at 0.1-5 parts by weight, and at least one polyfunctional (meth)acrylic ester, used in particular at 0.5-10 parts by weight.

6. Adhesive tape according to at least one of the preceding claims, characterized in that the pressure-sensitive adhesive composition is crosslinked by means of accelerated electrons or UV radiation.

7. Adhesive tape according to at least one of the preceding claims, characterized in that a coat of a primer is applied between the thermoplastic film and the adhesive layer.

8. Adhesive tape according to at least one of the preceding claims, characterized in that the thermoplastic film comprises a coating, for example a release coating.

9. Adhesive tape according to at least one of the preceding claims, characterized in that the adhesion of the adhesive composition to the thermoplastic film is improved by means of corona treatment or, preferably, flame pretreatment.

10. A process for producing an adhesive tape according to at least one of the preceding claims, characterized in that the pressure-sensitive adhesive composition based on non-thermoplastic elastomers is prepared continuously without solvent and without mastication in a continuously operating device having a filling section and a compounding section, the said process comprising

a) feeding the solid components of the self-adhesive composition, such as elastomers and resins, into the filling section of the device, optionally feeding fillers, dyes and/or crosslinkers,

b) transferring the solid components of the self-adhesive composition from the filling section to the compounding section,

c) adding the liquid components of the self-adhesive composition, such as plasticizers, crosslinkers and/or further tackifying resins, to the compounding section,

d) preparing a homogeneous self-adhesive composition in the compounding section, and

e) discharging the self-adhesive composition.

11. Use of the adhesive tape according to one of Claims 1 to 10, with a backing based on biaxially oriented polyolefins, on plasticized PVC or PET, as an adhesive packaging tape with good carton sealing and with good tack with respect to paper, especially recycled paper, sufficient cohesion, good packaging security, and easy unrolling.

12. Use of the adhesive tape according to one of Claims 1 to 11, with a backing based on monoaxially oriented polyolefins, as an adhesive packaging tape, strapping tape, for bundling and palletizing cardboard packaging and other goods.

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